

Juicy weather, 'Atmospheric River' study declared, Water Supply Index, and AGU Fall meeting

A cold, juicy set up is taking shape off the California coast. An upper level low is moving in from the Aleutians (so it won't be foggy after the front comes through!). A tropical moisture tap will be picked up, making for some wet weather both Thursday and Friday over our state, and Nevada. The low dives through the central valley overnight Thursday, and with such a cold core (-29 degrees C), thunderstorms are a good possibility. Isolated cells could pop up anywhere over the southern 2/3rds of the state Thursday night, or even Friday.

Model adjustments are being seen which track the low more interiorly, rather than riding the coast. Although a few timing differences exist, the overall impact is for a cold storm with snow level down to 4,500' by Friday. The Sierra will be wettest, with Winter Storm Watches posted from Thursday morning through Friday morning for the Northern and Central range, and from Thursday evening through Friday evening for the Southern Sierra. As for the coast, rain starts during the day on Thursday from Mendocino through the Bay area. (This is not a major North Coast event). Heaviest rain in the SoCal burn areas is for Thursday evening near Zaca, then Thursday night LA areas, to Friday for the San Diego areas. Storm totals range from 1" to 2 or possibly 3" depending on speed onshore/ upslope winds, and thunderstorm activity. Oh, Sacramentans... wet Thursday and Thursday night. As in, very wet. Slow driving conditions, big puddles, wet coats. Frontal passage maybe near midnight, so a soggy night tomorrow.

The lee-side of the Sierra may see continued widespread rainfall during the day Friday, perhaps more than is currently forecast, as the front will be right over them, and some energy reinvigorates the back of the low.

Interstate 5 remains closed near Chehalis, Washington after their recent storm. This makes the drive between Seattle and Portland take close to 7 hours! La Nina undercutting storms find their way to the coast. And when they do, Boom! It was the Pacific Northwest's turn last week.

This storm has some of the same background conditions (west-coast ridge breakthrough), but dissimilar duration and not quite as long a moisture fetch. Nonetheless, this is a good feature for the Santa Cruz area, which needs rain; a good Sierra system, with more snow than earlier predicted; and if it goes quickly enough, central and southern California won't have as high a flash flood concern as previously envisioned. At this point, it is less of a 'cutoff' low, so will move a bit faster. The problem is, last Friday and Saturday, there was a soaking rain over the burned watersheds. Over 3" fell near Mt. Palomar.

So the ground is wetter. Another inch or more too fast would be bad news, no matter how quickly the low exits. And will be interesting to see how long the precip lasts in the San Diego area (esp. mountains) on Saturday. Persistent showers may be more likely than the GFS (Global Forecast System) is painting.

The Hydrometeorological Testbed Project will be kicking off its operational season with this storm. This NOAA research to operations group finds enough compelling meteorology to take a closer investigative look with extra radar and upper air soundings. While the geographic focus is the American River Basin currently, these studies of 'atmospheric' rivers provide useful data for the entire west coast. For more on this program, and DWR's partnership, go to:

<http://www.esrl.noaa.gov/psd/programs/2008/hmt/>

The Department of Water Resources Snow Surveys Section will have their first Water Year Hydrologic Classification Indices posted by early next week. This link will get you to the report on CDEC, but currently it is still last May's:

<http://cdec.water.ca.gov/cgi-progs/iodir/WSI>

The American Geophysical Union will have their fall meeting 10–14 December 2007, Monday–Friday in San Francisco. It is expected to draw a crowd of over 15,000 geophysicists from around the world. This meeting will cover topics in all areas of Earth and space sciences. For more information, go to:

<http://www.agu.org/meetings/fm07/>

Stay dry, and we'll have another letter out approximately next Wednesday, with updated seasonal totals. This storm won't bring us up to normal on the 8–Station, but its better than nothing.

(EL)

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